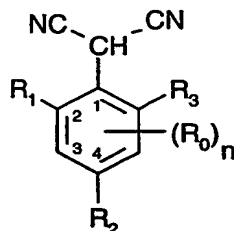


What is claimed is:

1. A process for the preparation of a compound of formula I



(I),

wherein

each R₀, independently of any other(s), is halogen, C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₁-C₆haloalkyl, cyano-C₁-C₆alkyl, C₂-C₆haloalkenyl, cyano-C₂-C₆alkenyl, C₂-C₆haloalkynyl, cyano-C₂-C₆alkynyl, hydroxy, hydroxy-C₁-C₆alkyl, C₁-C₆alkoxy, nitro, amino, C₁-C₆alkylamino, di(C₁-C₆alkyl)amino, C₁-C₆alkylcarbonylamino, C₁-C₆alkylsulfonylamino, C₁-C₆alkylaminosulfonyl, C₁-C₆alkylcarbonyl, C₁-C₆alkylcarbonyl-C₁-C₆alkyl, C₁-C₆alkoxycarbonyl-C₁-C₆alkyl, C₁-C₆alkylcarbonyl-C₂-C₆alkenyl, C₁-C₆alkoxycarbonyl, C₁-C₆alkoxycarbonyl-C₂-C₆alkenyl, C₁-C₆alkylcarbonyl-C₂-C₆alkynyl, C₁-C₆alkoxycarbonyl-C₂-C₆alkynyl, cyano, carboxy, phenyl or an aromatic ring containing 1 or 2 hetero atoms selected from the group nitrogen, oxygen and sulfur, wherein the latter two aromatic rings may be substituted by C₁-C₃alkyl, C₁-C₃haloalkyl, C₁-C₃alkoxy, C₁-C₃haloalkoxy, halogen, cyano or by nitro; or

R₀, together with the adjacent substituents R₁, R₂ and R₃, forms a saturated or unsaturated C₃-C₆hydrocarbon bridge that may be interrupted by 1 or 2 hetero atoms selected from the group nitrogen, oxygen and sulfur and/or substituted by C₁-C₄alkyl;

R₁, R₂ and R₃ are each independently of the others hydrogen, halogen, C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₆cycloalkyl, C₁-C₆haloalkyl, C₂-C₆haloalkenyl, C₁-C₆alkoxy-carbonyl-C₂-C₆alkenyl, C₁-C₆alkylcarbonyl-C₂-C₆alkenyl, cyano-C₂-C₆alkenyl, nitro-C₂-C₆alkenyl, C₂-C₆haloalkynyl, C₁-C₆alkoxycarbonyl-C₂-C₆alkynyl, C₁-C₆alkylcarbonyl-C₂-C₆alkynyl, cyano-C₂-C₆alkynyl, nitro-C₂-C₆alkynyl, C₃-C₆halocycloalkyl, hydroxy-C₁-C₆alkyl, C₁-C₆alkoxy-C₁-C₆alkyl, C₁-C₆alkylthio-C₁-C₆alkyl, cyano, C₁-C₄alkylcarbonyl, C₁-C₆alkoxy-carbonyl, hydroxy, C₁-C₁₀alkoxy, C₃-C₆alkenyloxy, C₃-C₆alkynyloxy, C₁-C₆haloalkoxy, C₃-C₆

haloalkenyloxy, C₁-C₆alkoxy-C₁-C₆alkoxy, mercapto, C₁-C₆alkylthio, C₁-C₆haloalkylthio, C₁-C₆alkylsulfinyl, C₁-C₆alkylsulfonyl, nitro, amino, C₁-C₆alkylamino, di(C₁-C₆alkyl)amino or phenoxy, wherein the phenyl ring may be substituted by C₁-C₃alkyl, C₁-C₃haloalkyl, C₁-C₃alkoxy, C₁-C₃haloalkoxy, halogen, cyano or by nitro;

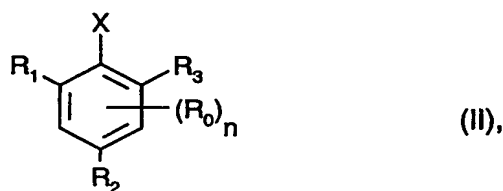
R₂ may additionally be phenyl, naphthyl or a 5- or 6-membered aromatic ring that may contain 1 or 2 hetero atoms selected from the group nitrogen, oxygen and sulfur, wherein the phenyl ring, the naphthyl ring and the 5- or 6-membered aromatic ring may be substituted by halogen, C₃-C₈cycloalkyl, hydroxy, mercapto, amino, cyano, nitro or by formyl; and/or

the phenyl ring, the naphthyl ring and the 5- or 6-membered aromatic ring may be substituted by C₁-C₆alkyl, C₁-C₆alkoxy, hydroxy-C₁-C₆alkyl, C₁-C₆alkoxy-C₁-C₆alkyl, C₁-C₆alkoxy-C₁-C₆alkoxy, C₁-C₆alkylcarbonyl, C₁-C₆alkylthio, C₁-C₆alkylsulfinyl, C₁-C₆alkylsulfonyl, mono-C₁-C₆alkylamino, di-C₁-C₆alkylamino, C₁-C₆alkylcarbonylamino, C₁-C₆alkylcarbonyl-(C₁-C₆alkyl)amino, C₂-C₆alkenyl, C₃-C₆alkenyloxy, hydroxy-C₃-C₆alkenyl, C₁-C₆alkoxy-C₂-C₆alkenyl, C₁-C₆alkoxy-C₃-C₆alkenyloxy, C₂-C₆alkenylcarbonyl, C₂-C₆alkenylthio, C₂-C₆alkenylsulfinyl, C₂-C₆alkenylsulfonyl, mono- or di-C₂-C₆alkenylamino, C₁-C₆alkyl(C₃-C₆alkenyl)amino, C₂-C₆alkenylcarbonylamino, C₂-C₆alkenylcarbonyl(C₁-C₆alkyl)amino, C₂-C₆alkynyl, C₃-C₆alkynyloxy, hydroxy-C₃-C₆alkynyl, C₁-C₆alkoxy-C₃-C₆alkynyl, C₁-C₆alkoxy-C₄-C₆alkynyloxy, C₂-C₆alkynylcarbonyl, C₂-C₆alkynylthio, C₂-C₆alkynylsulfinyl, C₂-C₆alkynylsulfonyl, mono- or di-C₃-C₆alkynylamino, C₁-C₆alkyl(C₃-C₆alkynyl)amino, C₂-C₆alkynylcarbonylamino or by C₂-C₆alkynylcarbonyl(C₁-C₆alkyl)amino; and/or

the phenyl ring, the naphthyl ring and the 5- or 6-membered aromatic ring may be substituted by halo-substituted C₁-C₆alkyl, C₁-C₆alkoxy, hydroxy-C₁-C₆alkyl, C₁-C₆alkoxy-C₁-C₆alkyl, C₁-C₆alkoxy-C₁-C₆alkoxy, C₁-C₆alkylcarbonyl, C₁-C₆alkylthio, C₁-C₆alkylsulfinyl, C₁-C₆alkylsulfonyl, mono-C₁-C₆alkylamino, di-C₁-C₆alkylamino, C₁-C₆alkylcarbonylamino, C₁-C₆alkylcarbonyl(C₁-C₆alkyl)amino, C₂-C₆alkenyl, C₃-C₆alkenyloxy, hydroxy-C₃-C₆alkenyl, C₁-C₆alkoxy-C₂-C₆alkenyl, C₁-C₆alkoxy-C₃-C₆alkenyloxy, C₂-C₆alkenylcarbonyl, C₂-C₆alkenylthio, C₂-C₆alkenylsulfinyl, C₂-C₆alkenylsulfonyl, mono- or di-C₂-C₆alkenylamino, C₁-C₆alkyl(C₃-C₆alkenyl)amino, C₂-C₆alkenylcarbonylamino, C₂-C₆alkenylcarbonyl(C₁-C₆alkyl)amino, C₂-C₆alkynyl, C₃-C₆alkynyloxy, hydroxy-C₃-C₆alkynyl, C₁-C₆alkoxy-C₃-C₆alkynyl, C₁-C₆alkoxy-C₄-C₆alkynyloxy, C₂-C₆alkynylcarbonyl, C₂-C₆alkynylthio, C₂-C₆alkynylsulfinyl, C₂-C₆alkynylsulfonyl, mono- or di-C₃-C₆alkynylamino, C₁-C₆alkyl(C₃-C₆alkynyl)amino, C₂-C₆alkynylcarbonylamino or C₂-C₆alkynylcarbonyl(C₁-C₆alkyl)amino; and/or

the phenyl ring, the naphthyl ring and the 5- or 6-membered aromatic ring may be substituted by a radical of formula COOR_{50} , CONR_{51} , $\text{SO}_2\text{NR}_{53}\text{R}_{54}$ or $\text{SO}_2\text{OR}_{55}$, wherein R_{50} , R_{51} , R_{52} , R_{53} , R_{54} and R_{55} are each independently of the others $\text{C}_1\text{-C}_6$ alkyl, $\text{C}_2\text{-C}_6$ alkenyl or $\text{C}_3\text{-C}_6$ alkynyl or halo-, hydroxy-, alkoxy-, mercapto-, amino-, cyano-, nitro-, alkylthio-, alkylsulfinyl- or alkylsulfonyl-substituted $\text{C}_1\text{-C}_6$ alkyl, $\text{C}_2\text{-C}_6$ alkenyl or $\text{C}_3\text{-C}_6$ alkynyl; and n is 0, 1 or 2,

by reaction of a compound of formula II



wherein

R_0 , R_1 , R_2 , R_3 and n are as defined and X is a leaving group, with malonic acid dinitrile in an inert diluent in the presence of a palladium catalyst and a base, which process comprises using as the base a hydroxide of an alkali metal or a mixture of hydroxides of alkali metals.

2. A process according to claim 1, wherein, in the compound of formula II, X is halogen; $\text{R}_{10}\text{S}(\text{O})_2\text{O}-$ wherein R_{10} is methyl, halomethyl, $\text{C}_4\text{F}_9\text{-(n)}$, phenyl or phenyl substituted from one to three times by halogen, methyl or by halomethyl; or is mono-, di- or tri-arylmethoxy.

3. A process according to claim 2, wherein X is chlorine, bromine, iodine, $\text{CF}_3\text{S}(\text{O})_2\text{O}-$ (triflate), $\text{CF}_3(\text{CF}_2)_3\text{S}(\text{O})_2\text{O}-$ (nonaflate), p-tolyl- $\text{S}(\text{O})_2\text{O}-$ (tosylate), $(\text{C}_6\text{H}_5)_2\text{CHO}-$, $(\text{CH}_3\text{-C}_6\text{H}_4)_2\text{CHO}-$, $(\text{C}_6\text{H}_5)_3\text{CO}-$ (trityl) or $(\text{CH}_3\text{-C}_6\text{H}_4)_3\text{CO}-$.

4. A process according to claim 3, wherein X is chlorine, bromine or iodine.

5. A process according to claim 4, wherein as palladium catalyst there is used a palladium(II) dihalide, palladium(II) acetate, palladium(II) sulfate, bis(triphenylphosphine)palladium(II) dichloride, bis(tricyclopentylphosphine)palladium(II) dichloride, bis(tricyclohexylphosphine)palladium(II) dichloride, bis(dibenzylideneacetone)palladium(0) or tetrakis(triphenylphosphine)palladium(0).

6. A process according to claim 1, wherein the palladium catalyst is prepared *in situ* from palladium(II) or palladium(0) compounds by complexing with phosphine ligands.
7. A process according to claim 1, wherein the palladium catalyst is used in an amount of from 0.001 to 100 mol% based on the compound of formula II.
8. A process according to claim 1, wherein as diluent there is used an aliphatic, cycloaliphatic or aromatic hydrocarbon, an aliphatic halohydrocarbon, a nitrile, an ether, an alcohol, a ketone, an ester or a lactone, an N-substituted lactam, an amide, an acyclic urea, a sulfoxide or water or a mixture of those diluents.
9. A process according to claim 8, wherein as an aromatic hydrocarbon there is used an ether, an N-substituted lactam, an amide, an acyclic urea or a sulfoxide.
10. A process according to claim 9, wherein N-methylpyrrolidone is used.
11. A process according to claim 1, wherein as base there is used sodium hydroxide or potassium hydroxide or a mixture of sodium hydroxide and potassium hydroxide.
12. A process according to claim 11, wherein sodium hydroxide is used as the base.
13. A process according to claim 10, wherein the base is used in an equivalent amount or in an excess of from 2 to 10 equivalents in relation to malonic acid dinitrile.
14. A process according to claim 1, wherein the reaction is carried out at a temperature of from 0° to 250°C.
15. A process according to claim 1, wherein the reaction of the malonic acid dinitrile with a compound of formula II is carried out at elevated pressure.